Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1-28. (cancelled)

29. (new) A dental handpiece, comprising:

- a longitudinal body;

- a first end of said body made as a cup that forms a seat oriented such that a longitudinal axis of said cup is deflected from the longitudinal axis of said body;

- a head made essentially in a form of a sphere and having a first part designed for positioning a dental instrument and a second part positioned in said seat to provide variation of an angle between the longitudinal axis of said dental instrument positioned in said first part of said head and a longitudinal axis of said body;

- said second part of said head being mounted in said seat to provide a full turn of said head around an axis of rotation of said head relative to said seat, said rotation axis coinciding with said longitudinal axis of said seat;

- said head being fastened in said seat such that the lateral displacement of the head relative to the longitudinal axis of said dental instrument at any turn of said head and any position of said handpiece body is absent;

- an air turbine positioned in said head and having means for fastening said instrument;

- a drive providing rotation of said instrument from said turbine;

- a channel for supplying an air stream to said head, said channel being positioned in said body;

- at least one nozzle for feeding the air stream to said turbine;

- at least one intermediate channel for feeding the air stream, said intermediate channel connecting said air stream supply channel to said head by the

at least one nozzle for feeding the air stream to said turbine at any position of said head during its full turn;

- said at least one intermediate channel being formed annular or spiral in an inner lateral surface of said seat or in an outer lateral surface of said second part of the head positioned in said seat;

- at least one aperture for discharging the used air from said turbine, said aperture being formed in said head;

- at least one channel for discharging the used air, said channel being formed in said seat and said handpiece body;

- at least one intermediate channel for discharging the used air, said intermediate channel being formed in the outer surface of said second part of the head positioned in said seat, and communicating said at least one aperture for discharging the used air from said turbine with said at least one channel for discharging the used air, said intermediate channel being formed in said seat and said handpiece body, at any position of said head being turned;

- a channel for supplying a water-air mixture to the head, said channel being positioned in said body; and

-a channel for discharging a stream of water-air mixture from said head, said channel being positioned in said body.

30. (new) The dental handpiece according to claim 29, wherein said handpiece has a device that provides discrete fixation of said head in said seat at any turn of said head and at any position of said dental instrument, wherein a force of fixation is selected so that it not would not be more than a force of resistance capable of stopping said turbine operating under the action of the air stream fed to it through said at least one nozzle for feeding the air to said turbine at any position of said head at its full turn.

31. (new) The dental handpiece according to claim 29, wherein the inner surface of said seat and the outer surface of said second part of said head mounted in said

seat are formed congruent and grounded-in such that fixation of the head in a predetermined position is provided, wherein a force of fixation is selected so that it would not be more than a force of resistance capable of stopping said turbine operating under the action of the air stream fed to it through said at least one nozzle.

32. (new) The dental handpiece according to claim 29, wherein said handpiece has:

- at least first and second light guides;
- said first light guide being positioned in said body of the handpiece and having an outlet;
- said second light guide being positioned in said head of the handpiece and having an inlet arranged with a gap relative to said outlet of said first light guide, and an outlet positioned in the vicinity of said dental instrument;
- said outlet of said first light guide and said inlet of said second light guide are positioned to provide sufficient light transmission from said first light guide to said second light guide at any turn of the head.

33. (new) The dental handpiece according to claim 32, wherein said outlet of said at least one first light guide and said inlet of said at least one second light guide are positioned at least partially opposite each other.

34. (new) The dental handpiece according to claim 32, wherein at least one discharge aperture for blowing the outlet of said second light guide is formed in said head.

35. (new) The dental handpiece according to claim 29, comprising a micromotor having a body in which an air stream feed channel is formed and connected with said air stream feed channel positioned in the handpiece body, and having means for providing mechanical drive action to said head to change its position in said seat.

36. (new) The dental handpiece according to claim 35, wherein said means for providing mechanical drive action to said head to change its position in said seat is a gear or a friction drive.

37. (new) The dental handpiece according to claim 35, wherein said air stream feed channel formed in said micromotor is connected to said air stream feed channel positioned in the handpiece body, wherein when said micromotor is activated to produce mechanical drive action to said head to change its position in said seat, said air stream is supplied only to the micromotor, while when said micromotor is deactivated said air stream is supplied only through the air stream feeding channel positioned in said handpiece body, said intermediate channel and said nozzle to the turbine.

38. (new) The dental handpiece according to claim 35, wherein said micromotor provides generation of direct and reverse mechanical drive action to said head in order to change its position in said seat.

39. (new) The dental handpiece according to claim 35, wherein said micromotor is an electric micromotor and said gas stream feed channel formed in said micromotor provides supply of a cooling air to said micromotor, wherein when said micromotor is activated to produce mechanical drive action to said head to change its position in said seat, said air stream is supplied only to the micromotor, while when said micromotor is deactivated said air stream is supplied only through said air stream feeding channel positioned in said handpiece body, said intermediate channel and said nozzle to the turbine.

40. (new) A dental handpiece, comprising:

- a longitudinal body;

- a first end of said body made as a cup that forms a seat oriented such that a longitudinal axis of said cup is deflected from the longitudinal axis of said body;

- a head made essentially in a form of a sphere and having a first part designed for positioning a dental instrument and a second part positioned in said seat to provide variation of an angle between the longitudinal axis of said dental instrument positioned in said first part of said head and a longitudinal axis of said body;

- said second part of said head being mounted in said seat to provide a full turn of said head around an axis of rotation of said head relative to said seat, said rotation axis coinciding with said longitudinal axis of said seat;

- said head being fastened in said seat such that the lateral displacement of the head relative to the longitudinal axis of said dental instrument at any turn of said head and any position of said handpiece body is absent;

- an air turbine positioned in said head and having means for fastening said instrument;

- a drive providing rotation of said instrument from said turbine;

- a channel for supplying an air stream to said head, said channel being positioned in said body;

- at least one nozzle for feeding the air stream to said turbine;

- at least one intermediate channel for feeding the air stream, said intermediate channel connecting said air stream supply channel to said head with the at least one nozzle for feeding the air stream to said turbine at any position of said head during its full turn;

- said at least one intermediate channel being formed annular or spiral in an inner lateral surface of said seat or in an outer lateral surface of said second part of the head positioned in said seat;

- at least one aperture for discharging the used air from said turbine, said aperture being formed in said head;

- at least one channel for discharging the used air, said channel being formed in said seat and said handpiece body;

- at least one intermediate channel for discharging the used air, said intermediate channel being formed in the outer surface of said second part of the

head positioned in said seat, and communicating said at least one aperture for discharging the used air from said turbine with said at least one channel for discharging the used air, said intermediate channel being formed in said seat and said handpiece body, at any position of said head being turned;

- a channel for supplying a water-air mixture to the head, said channel being positioned in said body;

-a channel for discharging a stream of water-air mixture from said head, said channel being positioned in said body.

- at least first and second light guides;

- said first light guide being positioned in said body of the handpiece and having an outlet;

- said second light guide being positioned in said head of the handpiece and having an inlet arranged with a gap relative to said outlet of said first light guide, and an outlet positioned in the vicinity of said dental instrument;

- said outlet of said first light guide and said inlet of said second light guide are positioned to provide sufficient light transmission from said first light guide to said second light guide at any turn of the head.

41. (new) The dental handpiece according to claim 40, wherein said second light guide is divided into two light guides both having an outlet positioned in the vicinity of said dental instrument.

42. (new) A dental handpiece, comprising:

- a longitudinal body;

- a first end of said body made as a cup that forms a seat oriented such that a longitudinal axis of said cup is deflected from the longitudinal axis of said body;

- a head made essentially in a form of a sphere and having a first part designed for positioning a dental instrument and a second part positioned in said seat to provide variation of an angle between the longitudinal axis of said dental

instrument positioned in said first part of said head and a longitudinal axis of said body;.

- said second part of said head being mounted in said seat to provide a full turn of said head around an axis of rotation of said head relative to said seat, said rotation axis coinciding with said longitudinal axis of said seat;

- said head being fastened in said seat such that the lateral displacement of the head relative to the longitudinal axis of the dental instrument at any turn of said head and any position of said handpiece body is absent;

- an air turbine positioned in said head and having means for fastening said instrument;

- a drive providing rotation of said instrument from said turbine;

- a channel for supplying an air stream to said head, said channel being positioned in said body;

- at least one nozzle for feeding the air stream to said turbine;

- at least one intermediate channel for feeding the air stream, said intermediate channel connecting said air stream supply channel to said head with the at least one nozzle for feeding the air stream to said turbine at any position of said head during its full turn;

- said at least one intermediate channel being formed annular or spiral in an inner lateral surface of said seat or in an outer lateral surface of said second part of the head positioned in said seat;

- at least one aperture for discharging the used air from said turbine, said aperture being formed in said head;

- at least one channel for discharging the used air, said channel being formed in said seat and said handpiece body;

- at least one intermediate channel for discharging the used air, said intermediate channel being formed in the outer surface of said second part of the head positioned in said seat, and communicating said at least one aperture for discharging the used air from said turbine with said at least one channel for

discharging the used air, said intermediate channel being formed in said seat and said handpiece body, at any position of said head being turned;

- a channel for supplying a water-air mixture to the head, said channel being positioned in said body;

-a channel for discharging a stream of water-air mixture from said head, said channel being positioned in said body.

- a micromotor having a body in which an air stream feed channel is formed and connected with said air stream feed channel positioned in the handpiece body, and having means for providing mechanical drive action to said head to change its position in said seat.

43. (new) The dental handpiece according to claim 42, wherein said second light guide is divided into two light guides both having an outlet positioned in the vicinity of said dental instrument.